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A WEBINAR PRESENTED BY THE WATERLOO INSTITUTE FOR SUSTAINABLE ENERGY

**Tuesday June 20, 2023
2:00pm – 3:00pm (EST)**

**Location: Centre for Environmental and Information
Technology (EIT), Room # 3142**

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UNDERSTANDING THE POTENTIAL AND CHALLENGES OF DERS IN CHILE

Daniel Eduardo Olivares Quero, Associate Professor, Faculty of Engineering and Sciences, and Director, Center for Energy Transition (CENTRA), Universidad Adolfo Ibáñez (UAI)

The growing penetration of distributed energy resources (DERs) has raised great interest in electricity network planners, regulators and policy makers. DERs can offer remarkable systemic, economic and environmental benefits, but also pose challenges that must be resolved for their efficient integration. In this context, this seminar presents a summary of the results of recent studies, research projects and policy analyze performed to progressively gain a greater understanding of the potential and challenges of DERs in Chile. First, we will briefly discuss the results of a recent study that analyzes the potential of DERs in Chile from a central planner perspective, taking into account their contributions in terms of energy, power and reduction of transmission requirements. Then, we will discuss the models, methodology, and partial results of an ongoing applied research project that aims to determine in higher detail the limits to DER penetration in distribution networks in Chile, due to different technical limitations. Finally, we will discuss some of the pending challenges of the efficient integration of DERs, in terms of technical models and analyses, and also in terms of the regulatory framework for distribution networks.

Biography



Daniel Olivares Quero is an Associate Professor at the Faculty of Engineering and Sciences of the Adolfo Ibáñez University (UAI), and Director of the UAI Center for Energy Transition (CENTRA). He has more than 15 years of experience in scientific studies and technical-economic analysis of the electricity sector in the national and international context. He holds a Civil Electrical Engineering degree from the University of Chile, and a Ph.D. in Electrical and Computer Engineering from the University of Waterloo, Canada. Additionally, Dr. Olivares is an associate researcher at the Solar Energy Research Center (SERC-Chile), and the Complex Engineering Systems Institute (ISCI). His research focuses on the development of control schemes, and computational models and tools for the efficient operation and planning of sustainable energy systems.

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